

EXPERIENCE ↗

Industrial Trainee (Coursework) Jan 2023 - Feb 2023
Brainstation 23 *Mirpur DOHS*

- Got hands on training on C# and ASP.NET MVC through Brainstation 23's LMS. During the course, I completed one desktop application project and two web-based projects using ASP.NET .

Capture The Flag (CTF)

TryHackMe

Mentor (Later Vice-President), MIST Cyber Security Club

- Certified for "Junior Penetration Tester" [[link](#)]
- Certified for "Attacking Active Windows Directory" [[link](#)][[Badge](#)].
- Became top 4 % on TryHackMe globally . [[link](#)]
- Mentor at MIST Cyber Security Club
- 24th place nationally as team lead.
- Achieved 79th place globally in Kaspersky codebreakers CTF.
- Global rank 97 at BlackHatMEA 2023 CTF Finals.[[link](#)]

[Stackoverflow](#) ↗ | [AskUbuntu](#) ↗

Provided 4 solutions

- Solution links : [1](#) [2](#) [3](#) [4](#)

Competitive programming 2020 - Present

- Solved over 250+ problems on GeeksForGeeks, Codeforces and Leetcode

SKILLS ↗

Language	Java, Python, C, C++, Solidity,Git, L ^A T _E X, C#, Bash,PHP, JavaScript, Mat-lab, SQL
Frontend	HTML5, CSS, JS, Bootstrap, React
Backend	Flask, Django, ASP.NET Core, Node.js
Database	MySQL, Firebase, MongoDB
IOT & Robotics	Arduino, Raspberry PI, Jetson Nano & Xavier, LIDAR, ZED-Stereo Cam, ESP-32,PX4 (Pixhawk),ROS,ROS2,MAVROS
App Development	Flutter, Dart
Soft Skills	English (business), Bengali (business), Public Speaking, Extempore Speech
Pentesting Tools& OS	Burp Suite, Metasploit, NMap, SQLMap, Wireshark, Nessus, John The Ripper, Hashcat, Dirb, Volatility, Parrot OS
Other	Containerization, Networking & Linux, PyTorch, Azure, CI/CD, Tensor-Flow,Intellij IDEA, Visual Studio, Git, Docker, MS Excel, MS Word, MS Power-Point

PROJECTS | CERTIFICATIONS ↗

Software & Autonomous System Developer 2021 - ongoing
Mars Society's University Rover Challenge (URC) *USA*
Anatolian Rover Challenge (ARC) *UKET,Turkey*

- Developed an autonomous rover system using software & communication team for URC-2021 competition which became **champion globally beating 88 teams** in SAR and finally 36 teams in the final [Link](#).
- Developed an autonomous rover system with software & communication team for ARC-2022 competition which **became third among 14 final contestant countries** .[Link](#)

- Software & Autonomous Team Lead For URC-2023, became 2nd in Asia in SAR stage.
- Software & Autonomous Team Lead For ARC-2023, became 2nd in Asia & 5th globally.

Pretrained CNN-based Dog Classifier |[Code](#)|[Certificate](#)

Tech Stack Python,ResNET,VGG16, Machine Learning

Bus Counter Management System Using JavaFX | [Code](#)

Tech Stack Swing, JavaFX, Java

Military Communication Equipment Repair and Issuing of Spare Parts Management System | [Code](#)

Tech Stack Web Development, HTML, CSS, JS, PHP, OracleDB

Simple weight machine using HX711 and Arduino | [Code](#)

Tech Stack Arduino, IOT, HX711 sensor

SoccerBot

Tech Stack Arduino,C++

DekhboKinbo | [Code](#)

Tech Stack C#, .NET Core MVC,Entity

Alumni Information Management System | [Code](#)

Tech Stack C#, MySQL

Blockchain-based Land Record management system with biometric authentication | [Blockchain \(Contract\)](#) | [Website](#)

Tech Stack Blockchain, Django, Arduino, IOT

PyTorch-Create Your Own Classifier |[Code](#)|[Certificate](#)

Tech Stack Python, CNN, Machine Learning, AWS, Udacity

RESEARCH & PUBLICATIONS ↗ | [SCHOLAR](#) ↗

- DeepTriNet: A Tri-Level Attention Based DeepLabv3+ Architecture for Semantic Segmentation of Satellite Images.[Link](#) [got the best paper award]
- Performance Analysis of Various EfficientNet Based U-Net++ Architecture for Automatic Building Extraction from High Resolution Satellite Images.[Link](#)
- CycleGAN-Based Data Augmentation with CNN and Vision Transformers (ViT) Models for Improved Maize Leaf Disease Classification.[Link](#)
- Biomolecular Analysis of Soil Samples and Rock Imagery for Tracing Evidence of Life Using a Mobile Robot [Accepted at ICRAIE - 2023]
- Enhancing Mango Leaf Disease Classification: ViT, BiT, and CNN-Based Models Evaluated on CycleGAN-Augmented Data [Accepted at ICCIT-2023]
- SecureLandChain: A Blockchain-Based Land Registry System with Biometric Authentication and Certificate Verification System [Submitted for a Q1]
- Automatic Literature Review Generation : An Improved LLM-RAG Based Solution Embedded With Regex and T5. [Thesis]

EDUCATION ↗

B.Sc in Computer Science and Engineering 2020 - 2024
Military Institute of Science and Technology

Higher Secondary School Certificate 2017 - 2019
Barishal Cadet College